IN THE UNITED STATES DISTRICT COURT FOR THE DISTRICT OF DELAWARE

TQ DELTA, LLC,

Plaintiff,

C.A. No. 13-cv-1835-RGA

v.

2WIRE, INC.,

Defendant.

TQ DELTA'S MEMORANDUM IN SUPPORT OF ITS MOTION TO STRIKE NEW DEFENSES BASED ON PURPORTED PRIOR ART DEVICES FOR FAMILY 6

Dated: August 20, 2020 Brian E. Farnan (Bar No. 4089) Michael J. Farnan (Bar No. 5165)

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Pursuant to Fed. R. Civ. P. 16, 26, and 37, and the Court's Final Scheduling Order (D.I.¹ 513), Plaintiff TQ Delta, LLC ("TQ Delta") moves to strike all reference to, and all invalidity defenses based on, two purported prior art products, the so-called "Virtuoso" and "TNETD2000C" products. This includes striking at least paragraphs 218-233, 236, 322-337, 424 (partial), and 1107-1217 of the Opening Expert Report of Dr. Krista Jacobsen on Invalidity of TQ Delta's Family 6 Patents (Ex.² A, hereinafter the "Jacobsen Report"). The Jacobsen Report asserts §§ 101, 102, and 103 invalidity grounds based on these purported products, which grounds and products were never previously disclosed by Defendant 2Wire, Inc. ("2Wire") in its Final Invalidity Contentions. Allowing 2Wire to add these purported products at this very late stage of the case, and thereby raise a litany of factual questions for which discovery is not possible, will cause significant incurable prejudice to TQ Delta. On the other hand, 2Wire will not be prejudiced by striking invalidity theories that rely on these products because they form the basis for only a small fraction of the over 50 separate invalidity grounds raised in the 492-page Jacobsen Report.³

I. INTRODUCTION

2Wire's invalidity expert, Dr. Krista Jacobsen, offers the opinion that claims 8 and 10 ("the asserted claims") of U.S. Patent No. 8,462,835 ("the 835 patent") are invalid under 35 U.S.C. § 102(g) and/or § 103 based on, *inter alia*, two alleged prior art devices referred to as the "Virtuoso" and the "TNETD2000C." ⁴ 2Wire, however, failed to disclose those invalidity grounds in its Final

¹ All "D.I." cites are to the docket in Case No. 1:13-cv-01835-RGA.

² All "Exs. A-F" are filed with the Declaration of Ashley M. Ratycz dated August 20, 2020.

³ The Jacobsen Report includes at least 25 § 103 grounds and 14 § 102 grounds based on eight unique items of prior art, ten § 112 grounds (only two of which are even arguably mentioned in 2Wire's Final Invalidity contentions), and two § 101 grounds (neither of which were previously disclosed in 2Wire's Final Invalidity Contentions). *See infra* at fn. 12.

⁴ The two purported physical products are (1) the Texas Instruments Virtuoso Chipset and Evaluation Module (the "Virtuoso"), and (2) the Texas Instruments TNETD2000C Chipset and Evaluation Module (the "TNETD2000C").

Invalidity Contentions. In fact, 2Wire never previously asserted that the Virtuoso or TNETD2000C constituted prior art to the 835 patent. Disclosure of the Virtuoso and TNETD2000C for the first time in the Jacobsen Report violates the Court's Final Scheduling Order and Federal Rules of Civil Procedure 16 and 26. Allowing 2Wire or Dr. Jacobsen to rely on those devices as a basis for their invalidity contentions or as purported prior art would cause undue prejudice to TQ Delta that cannot be cured at this late stage in the case.

2Wire's belated disclosure of the Virtuoso and the TNETD2000C devices prevented TQ Delta from taking discovery on those devices and, for example, examining the composition and source code of those products. Such belated disclosure by 2Wire also prevented TQ Delta from seeking discovery related to whether, and in what form, those devices were reduced to practice, or sold or used publicly, before the priority date. Notably, Dr. Jacobsen knew about both of these devices long before she assisted 2Wire in creating its invalidity contentions, yet failed at that time to identify either device as prior art to the 835 patent. Indeed, Dr. Jacobsen cited to the Virtuoso and TNETD2000C as prior art in her expert invalidity reports in the related ZyXEL litigation nearly a year ago. See D.I. 670, Ex. A to Case No. 1:13-cv-02013-RGA at §§X.I-J. TQ Delta moved to strike ZyXEL and Dr. Jacobsen's invalidity theories based on these purported products (see TQ Delta v. ZyXEL Comms., Inc. et al., 13-cv-2013-RGA, D.I. No. 659), but the ZyXEL case was settled before the issue was resolved by the Court. Despite 2Wire and Dr. Jacobsen's knowledge of these circumstances, 2Wire never moved to supplement its Final Invalidity Contentions to include such purported products as prior art or to include the new invalidity grounds on which Dr. Jacobsen now relies. Allowing 2Wire and Dr. Jacobsen to rely on the Virtuoso or TNETD2000C devices for any reason unduly prejudices TQ Delta. Therefore, TQ Delta respectfully requests that the Court strike all reference to such products from the Jacobsen Report, and preclude 2Wire and Dr. Jacobsen from relying on them for any reason at trial.

II. NATURE AND STAGE OF PROCEEDINGS

On November 4, 2013, TQ Delta sued 2Wire for patent infringement of twenty-four patents across six different patent families. D.I. 1; D.I. 6. The Court divided the case into separate trials based on the individual patent families and parties. D.I. 280. The present motion relates to the 835 Patent of Family 6. Pursuant to the Court's April 11, 2018 Final Scheduling Order (D.I. 513), 2Wire served its Final Invalidity Contentions on August 15, 2018. Ex. B (2Wire Final Invalidity Contentions). Fact discovery closed on October 1, 2018. D.I. 513 at p. 2. 2Wire's opening invalidity expert report (which is the focus of this motion) was served nearly two years later - on July 10, 2020. D.I. 1283. TQ Delta's rebuttal invalidity expert report was served on August 7, 2020, and 2Wire's reply invalidity expert report will be served on August 26, 2020. *Id.* Expert discovery closes on September 16, 2020. *Id.* A pretrial conference for Family 6 is set for January 15, 2021 and trial is scheduled to begin on January 25, 2021. *Id.*

III. STATEMENT OF FACTS

On July 10, 2020, the Jacobsen Report disclosed new invalidity grounds under 35 U.S.C. §§ 102(g) and 103⁵ based on the Virtuoso and TNETD2002C, *e.g.*:

1107. Claims 8 and 10 of the '835 patent are invalid under 35 U.S.C. § 102(g) because the claimed invention was invented in the United States by teams at Amati and Texas Instruments, before the priority date of the '835 patent and was not abandoned, suppressed, or concealed. On the contrary, the claimed invention was actually reduced to practice in both the Virtuoso chipset and in the Virtuoso chipset's evaluation module, both of which TI announced publicly, offered to sell, and sold to customers more than four years before the purported priority date of the '835 patent.

⁵ While obviousness under § 103 is stated as a basis for invalidity, the Jacobsen Report does not actually provide any analysis (*e.g.*, motivation to combine or modify) for such assertion. *See* Ex. A (Jacobsen Report) at §X.L (Virtuoso) and §X.M (TNETD2000C).

* * *

1110. In my opinion, the Virtuoso chipset and EVM anticipate and/or render obvious claim 8 because they disclose each limitation of claim 8.

* * *

1172. Claims 8 and 10 of the '835 patent are invalid under 35 U.S.C. § 102(g) because the claimed invention was invented in the United States by teams at Amati and Texas Instruments, before the priority date of the '835 patent, and was not abandoned, suppressed, or concealed. On the contrary, the claimed invention was actually reduced to practice in the TNETD2000C chipset and evaluation module, both of which TI announced publicly, offered to sell, and sold to customers years before the purported priority date of the '835 patent.

* * *

1178. In my opinion, the TNETD2000C chipset and EVM anticipate and/or render obvious claim 8 because they disclose each limitation of claim 8.

Ex. A (Jacobsen Report) at ¶¶1107, 1110, 1172, 1178. Additionally, the Jacobsen Report disclosed a new invalidity ground under 35 U.S.C. § 101 based on the TNETD2000C. *Id.* ¶¶322-337. None of these invalidity grounds - or the purported prior art devices that form the basis for such grounds - were disclosed by 2Wire in its Final Invalidity Contentions served on August 15, 2018. *See* Ex. B (2Wire Final Invalidity Contentions) at pp. 65-74. Nor were these products or invalidity grounds disclosed in 2Wire's initial invalidity contentions or at any prior time during the nearly seven years that this case has been pending.

The Court's Final Scheduling Order allows parties to seek leave to supplement their final invalidity contentions for good cause:

8. <u>Final Invalidity Contentions</u>. Defendant shall serve final invalidity contentions no later than August 15, 2018. Defendants may seek leave to supplement their final invalidity contentions for good cause.

D.I. 513, at p. 5. 2Wire never sought leave to supplement its Final Invalidity Contentions to include the any invalidity grounds that rely on the Virtuoso or TNETD2000C.

Dr. Jacobsen was engaged in this case by counsel for 2Wire in February of 2014, and was involved in the creation and development of 2Wire's invalidity contentions. See Ex. C (Jacobsen 2Wire F1 Dep. Tr.) at 26:7-9 ("Q. And when were you first formally engaged for the purpose of this case? A. I believe it was February of 2014."); id. at 28:11-29:2 ("Q. Were you involved in the creation of the invalidity contentions that were served by 2Wire early in the case?... A. I remember reviewing them and giving my assessment again. Q. Do you know if they were changed based on your assessment and input? A. I don't know. They were consistent with my assessment."). From her time working at Texas Instruments between 1996 and 2004, Dr. Jacobsen purports to have had knowledge of the Virtuoso and TNETD2000C as early as their original development. See Ex. A (Jacobsen Report) at ¶218 ("By March 3, 2004, many chipset and equipment vendors were making and selling DSL equipment to service providers both in the United States and abroad. This section describes two such products with which I have personal knowledge from my time working for Texas Instruments."); id. at ¶1108 ("I was a member of the VDSL teams at Amati and TI. I have personal knowledge of Amati's and TI's VDSL development and products, including the Virtuoso chipset and EVM. . . . "); id. at ¶6 ("From 1996 to 2004, I worked as an engineer at Amati Communications Corporation, which was acquired by Texas Instruments (TI) in 1998."). Despite purportedly having knowledge of the Virtuoso and TNETD2000C when she was assisting 2Wire on its invalidity contentions, 2Wire did not identify these purported products as alleged prior-art.

Dr. Jacobsen was also retained by Defendants ZyXEL Communications, Inc. and ZyXEL Communications Corporation (collectively, "ZyXEL") in the related litigation between TQ Delta and ZyXEL for the 835 patent, and was involved with the selection of prior art for ZyXEL's invalidity contentions. *See* Ex. D (Jacobsen ZyXEL F6 Dep. Tr.) at 10:11-11:5 ("Q. And when did you start working on matters relating to the [835 patent] that's at issue in this case?... A. Well,

I was originally retained in a consulting capacity on behalf of another defendant. **Q.** And who was this other defendant? A. 2Wire. Q. Okay. And when were you retained by - - ZyXEL to work on matters pertinent to ZyXEL in this case? A. I'm not 100 percent sure. It was after - - after I was working with counsel for 2Wire. Maybe 2015 or '16 was the earliest."); id. at 14:20-25 ("Q. Were you involved in identifying any of the prior art references that went into ZyXEL's final invalidity contentions? A. I was - - I had a hand in identifying the prior art that ended up in ZyXEL's final invalidity contentions."). On September 3, 2019, in her opening expert report on invalidity for the ZyXEL case, Dr. Jacobsen disclosed invalidity grounds based on the Virtuoso and TNETD2000C.⁶ See D.I. 670, Ex. A to Case No. 1:13-cv-02013-RGA at ¶¶793, 868. TQ Delta moved to strike the Virtuoso and TNETD2000C devices as purported prior art and to preclude ZyXEL and Dr. Jacobsen from relying on such devices to prove that any element of the asserted claims were met. See D.I. 659 (Motion), D.I. 661 (Memorandum in Support) of Case No. 1:13-cv-02013-RGA. The parties came to a resolution in that case before the Court ruled on TQ Delta's motion. See D.I. 691 of Case No. 1:13-cv-02013-RGA. Notably, despite Dr. Jacobsen's reliance on the Virtuoso and TNETD2000C in the ZyXEL case, 2Wire never moved to amend or supplement its Final Invalidity Contentions to disclose reliance on these purported products for any reason.

IV. LEGAL STANDARD

A party may not introduce new theories of invalidity, including new prior art references, for the first time through an expert report. *See, e.g., Merck Sharp & Dohme Corp. v. Sandoz, Inc.*, 2014 WL 1494592, at *11-12 (D.N.J. Apr. 16, 2014) ("[P]ermitting [Defendant] to assert new bases for its obviousness defense for the first time in its expert report, approximately seven months after its Invalidity Contentions had been served, would cause prejudice to Merck by requiring it to

⁶ As with this case, ZyXEL had not identified the Virtuoso or TNETD2000C as prior art to the 835 patent in ZyXEL's invalidity contentions.

spend great time and expense reformulating its Responses to Sandoz's Invalidity Contentions and rethinking its litigation strategy."); *Verinata Health, Inc. v. Sequenom, Inc.*, 2014 WL 4100638, *3 (N.D. Cal. Aug. 20, 2014) ("a party may not use an expert report to introduce. . . new prior art references not disclosed in the parties'. . . invalidity contentions."); *Brilliant Instruments, Inc. v. GuideTech, Inc.*, 2011 U.S. Dist. LEXIS 30835, at *5-6 (N.D. Cal. Mar. 15, 2011) (striking newly identified prior art in expert's report "that he relies on. . . as prior art that allegedly anticipates the claims asserted in this action or renders such claims obvious."); *Praxair, Inc. v. ATMI, Inc.*, 231 F.R.D. 457, 463-64 (D. Del. 2005), *rev'd on other grounds*, 543 F.3d 1306 (Fed. Cir. 2008); *Pactiv Corp. v. Multisorb Techs., Inc.*, 2013 U.S. Dist. LEXIS 75585, at *10 (N.D. Ill. May 9, 2013).

Under Fed. R. Civ. P. 16, a party is required to adhere to the Court's scheduling and pretrial orders. *See* Fed. R. Civ. P. 16(f). When a party fails to adhere to the Court's scheduling order, Fed. R. Civ. P. 16(f)(1)(C) provides that the Court may issue any sanction authorized by Rule 37(b)(2)(A)(ii-vii), which sanctions include exclusion of evidence at trial. *See* Fed. R. Civ. P. 16(f)(1)(C); Fed. R. Civ. P. 37(b)(2)(A)(ii); *see also Vehicle IP, LLC v. Werner Enterprises, Inc.*, No. 10-cv-00503-SLR, 2013 WL 4786119, at *1 (D. Del. Sept. 9, 2013) (citing Fed. R. Civ. P. 16(f)) ("Under Rule 16(f), the court may impose sanctions if, inter alia, a party of its attorney 'fails to obey a scheduling order or other pretrial order.'"). Pursuant to Fed. R. Civ. P. 26(e), a party is required to supplement or correct disclosures made under 26(a) "in a timely manner if the party learns that in some material respect the disclosure or response is incomplete or incorrect." Fed. R. Civ. P. 26(e)(1)(A). When a party fails to provide information as required by Fed. R. Civ. P. 26(e), "the party is not allowed to use that information. . . to supply evidence on a motion, at a hearing, or at trial, unless the failure was substantially justified or is harmless." Fed. R. Civ. P. 37(c)(1); *see also Vehicle IP*, 2013 WL 4786119, at *1 (citing Fed. R. Civ. P. 37(c)(1)) ("Under Rule

37(c)(1), a party that fails to comply with Rule 26(a) or (e) (regarding failure to disclose or supplement) 'is not allowed to use that information or witness to supply evidence on a motion, at a hearing, or at a trial, unless the failure was substantially justified or is harmless.'"). Pursuant to Fed. R. Civ. P. 37(c)(1)(C), the Court may impose appropriate sanctions, including the exclusion of evidence under Rule 37(b)(2).

"The decision to exclude evidence lies within the discretion of the Court." *Bridgestone Sports Co. Ltd. v. Acushnet Co.*, C.A. No. 05-132 JJF, 2007 WL 521894, at *4 (D. Del. Feb. 15, 2007) (precluding use of prior art references that were available to defendant prior to the close of fact discovery and the deadline for final invalidity contentions). Courts in the Third Circuit consider five factors when deciding whether to preclude evidence:

(1) the prejudice or surprise to a party against whom the evidence is offered; (2) the ability of the injured party to cure the prejudice; (3) the likelihood of disruption of the trial schedule; (4) bad faith or willfulness involved in not complying with the disclosure rule; and (5) the importance of the evidence to the party offering it.

Bridgestone Sports Co, 2007 WL 521894, at *4 (citing Meyers v. Pennypack Woods Home Ownership Ass'n, 559 F.2d 894, 904–05 (3d Cir. 1977)). In "sophisticated, complex litigation involving parties represented by competent counsel," courts have been "less indulgent" in applying the Pennypack factors and are "more willing to exclude evidence without a strict showing that each of the Pennypack factors has been satisfied." Bridgestone Sports Co, 2007 WL 521894, at *4. As this Court has stated regarding the current litigation, "[t]here can be little doubt that this sprawling litigation, which has already lasted the better part of a decade, is 'sophisticated [and] complex' or that these parties are represented by 'competent counsel.'" See TQ Delta, LLC v. Adtran, Inc., No. 1:14-cv-00954-RGA, D.I. 1186 (D. Del. July 31, 2020).

V. ARGUMENT

The Court should strike 2Wire's defenses and the portions of the Jacobsen Report that cite to or rely on the Virtuoso and/or TNETD2000C under Rule 37 because 2Wire's belated disclosure of those devices and defenses violates the Court's Final Scheduling Order and Rules 16 and 26. Analysis of the *Pennypack* factors heavily favors exclusion.

A. 2Wire's Late Disclosure of the Virtuoso and TNETD2000C Violates the Court's Final Scheduling Order and Fed. R. Civ. P. 16 and 26

The Court should strike any defenses relying the Virtuoso and TNETD2000C under Fed. R. Civ. P. 37 and preclude reference to such purported products because 2Wire's belated disclosure thereof violates the Court's Final Scheduling Order which states:

- 8. <u>Final Invalidity Contentions</u>. Defendant shall serve final invalidity contentions no later than August 15, 2018. Defendants may seek leave to supplement their final invalidity contentions for good cause.
- D.I. 513, at p. 5. Fact discovery has been closed since October 1, 2018. *Id.* at p. 2. At no time during discovery did 2Wire disclose any defenses based on the Virtuoso or TNETD2000C or provide any discovery relating thereto. Since the Final Invalidity Contentions and fact discovery deadlines, 2Wire never sought leave to supplement its invalidity contentions to add those products. As such, 2Wire has failed to comply with Rule 26(e)(1), which requires:

A party who has made a disclosure under Rule 26(a) - - or who has responded to an interrogatory, request for production, or request for admission - - must supplement or correct its disclosure or response:

[I]n a timely manner if the party learns that in some material respect the disclosure or response is incomplete or incorrect, and if the additional or corrective information has not otherwise been made known to the other parties during the discovery process or in writing[.]

Fed. R. Civ. P. 26 (e)(1). As such, it is far too late now for 2Wire to inject new invalidity theories into the case through Dr. Jacobsen's expert report. See, e.g., Charleston Medical Therapeutics,

Inc. v. AstraZeneca Pharma. LP, 2015 WL 10913613, at *1 (D.S.C. April 16, 2015) (striking portions of expert report that relied on prior art not disclosed in defendant's invalidity contentions where defendant never moved to supplement); see also Changzhou Kaidi Elec. Co., Ltd. v. Okin America, Inc., 112 F.Supp.3d 330, 335 (D. Md. 2015).

2Wire's failure to timely-identify the Virtuoso and TNETD2000C, and the defenses based on such purported products, is not substantially justified or harmless. Cf. Laboratory Skin Care, Inc. v. Limited Brands, Inc., No. 06-cv-00601-JJF, D.I. 217 (D. Del. Oct. 14, 2009) (finding that defendant breached its duty to supplement under Rule 26(e) and that such failure to disclose was not substantially justified or harmless). Rather, TO Delta will be substantially and incurably prejudiced. TO Delta is now shut out from taking fact discovery on the newly-disclosed products and defenses. Unlike prior art patents, which include all relevant technical disclosures (e.g., written description and figures) and foundational facts (e.g., filing, publication, and patenting dates) within their four corners, invalidity defenses that rely on purported prior art products present uniquely difficult discovery issues that make timely disclosure even more important. Given 2Wire's late disclosure, TQ Delta has no ability to obtain and review source code for the products, seek testimony from engineers who purportedly built the products, determine whether, when, and in what form such products were purportedly reduced to practice, made public, or sold before the invention date, or investigate any other facts that could disprove or impeach the factual assertions Dr. Jacobsen has made about the products in her expert report.

If the late-disclosed defenses are not stricken, TQ Delta will suffer substantial, incurable prejudice. 2Wire's untimely disclosure unduly prejudices TQ Delta, and prevents TQ Delta from seeking the information that it needs to fully and fairly protect its valuable patent rights. Since 2Wire failed to adhere to the Court's scheduling order as required by Rule 16, and it's duty to

timely supplement its disclosures as required by Rule 26(e), Rule 37 expressly allows this Court to strike the Virtuoso and TNETD2000C products as purported prior art references and the portions of the Jacobsen Report that cite to and rely on such products. *See* Fed. R. Civ. P. 37(b)(2)(A)(iiii). As discussed in more detail below, the *Pennypack* factors heavily weigh in favor of striking the Virtuoso and TNETD2000C products as purported prior art products and the portions of the Jacobsen Report that cites to and relies on them.

B. The *Pennypack* Factors Heavily Favor of Exclusion

1. TQ Delta Is Prejudiced By the New Disclosures

The first *Pennypack* factor strongly favors exclusion. As discussed *supra* in Section V.A, TQ Delta will be irreparably harmed if Dr. Jacobsen and 2Wire are allowed to rely on the Virtuoso and TNETD2000C. Purported prior art products raise unique factual issues for which timely disclosure and an adequate opportunity for discovery and analysis is critical.⁷ As explained, fact discovery closed on October 1, 2018 – over 20 months ago. Thus, TQ Delta never had an opportunity to request samples of such products for testing, obtain and review source code for the products, or seek testimony from engineers who purportedly built the products. Without the timely opportunity to perform testing or to analyze source code for such physical products, TQ Delta has been deprived of the opportunity to present such compelling evidence that the products do not

⁷ 2Wire has offered to make available for inspection in California physical specimens of the two purported prior-art devices. *See* Ex. E (Email Exchange between Ong and Chiplunkar) at p. 4. But an inspection of physical devices does not provide any of the information TQ Delta would need to fairly and fully confront the factual assertions made by Dr. Jacobsen about the devices. There is no way for TQ Delta to see the source code for these devices and, thus, no way to determine whether they truly include the functionality alleged by Dr. Jacobsen. It also appears that such devices are no longer operable or testable; otherwise, 2Wire or Dr. Jacobsen would have said so and presented testing evidence. Thus, there is no way for TQ Delta's experts to observe their current functionality. And even if the products could be tested, there is no way for TQ Delta to discover facts regarding whether the devices are currently in the form they purportedly were in nearly two decades ago when they were purportedly reduced to practice, made, and/or sold.

embody certain claim elements. For example, it is not possible to know from the high-level documents cited by Dr. Jacobsen whether the products meet each limitation of the claims.⁸ As such, 2Wire has prevented TQ Delta from fully developing evidence to show that those devices do not actually operate in accordance with the asserted claims.

Further, 2Wire has also not provided any sales data or other such evidence to show that either of the products was even on sale or publicly available before the critical date of the 835 patent. And the testimony of 2Wire's expert is not a valid substitute for such essential evidence. See Woodland Tr. v. Flowertree Nursery, Inc., 148 F.3d 1368, 1373 (Fed. Cir. 1998) ("Witnesses whose memories are prodded by the eagerness of interested parties to elicit testimony favorable to themselves are not usually to be depended upon for accurate information;" noting "the heavy burden when establishing prior public knowledge and use based on long-past events." (citing Barbed Wire Patent Case, 143 U.S. 275, 12 S.Ct. 443, 36 L.Ed. 154 (1892)). Consequently, TQ Delta will be irreparably prejudiced if 2Wire is allowed to rely on the Virtuoso and TNETD2000C devices, because TQ Delta was prevented from developing evidence to disprove that, or cast doubt on whether, those products even qualify as prior art. This is even more important given that it is

⁸ For example, with respect to the Virtuoso, Dr. Jacobsen relies on a "Product Preview" for the TNETD8100 (*see*, *e.g.*, Ex. A (Jacobsen Report) at ¶1113), a "User Manual" for the TNETD8000 EVM (*see id.* at ¶1114-1115), and a presentation titled "VDSL Technology Overview and Product Status" (*see id.* at ¶1118). None of these documents, however, are adequate to determine whether such products provide the functionality recited in the asserted claims.

⁹ After service of the Jacobsen Report, TQ Delta identified to 2Wire's counsel several categories of information that are relevant to assessing Dr. Jacobsen's new opinions about the purported priorart devices including: (1) source code for the products as they were purportedly made prior to the Family 6 invention date; (2) any testing of the products prior to the Family 6 invention date; and (3) proof of manufacture, public use and sales data. *See* Ex. E (Email Exchange between Ong and Chiplunkar) at p. 3. Subsequently, 2Wire produced several documents that were allegedly responsive to TQ Delta's identified categories of information. *See id.* at pp. 2-3. However, none of the produced materials were actually relevant to determining whether the two purported prior-art devices actually met the elements of the asserted claims.

2Wire's burden under the clear and convincing standard to show that all facts necessary to its defenses based on these purported products are highly probable.

Thus, TQ Delta is unduly prejudiced by the late disclosure of these prior art devices. This *Pennypack* factor weighs in favor of striking the Virtuoso and TNETD2000C as prior art references, striking the portions of the Jacobsen Report that cite to and rely on such products, and precluding 2Wire and Dr. Jacobsen from relying on those products at trial.

2. TQ Delta Cannot Cure the Prejudice

The second *Pennypack* factor also favors exclusion. Fact discovery closed on October 1, 2018, expert discovery closes on September 16, 2020, summary judgment and *Daubert* motions are due on October 16, 2020, and trial is scheduled for January 2021. TQ Delta has no ability to cure the prejudice 2Wire caused by the late identification of the Virtuoso and TNETD2000C. TQ Delta and its experts cannot perform testing on such products, or analyze the source code and detailed technical documentation for either of those products. Thus, the prejudice cannot be cured.

2Wire's counsel has refused to withdraw Dr. Jacobsen's invalidity opinions based on the previously undisclosed Virtuoso and TNETD2000C products, stating that there is no prejudice to TQ Delta since Dr. Jacobsen offered the same opinions in the *ZyXEL* case. *See* Ex. E (Email Exchange between Ong and Chiplunkar) at p. 4. As an initial matter, that Dr. Jacobsen also belatedly disclosed the two purported prior-art products in her Family 6 expert report in the *ZyXEL* case does not relieve 2Wire of its duty to disclose under Rule 26. And, the *ZyXEL* case was resolved long ago by settlement so there was no reason for TQ Delta to have further investigated the purported products since that time, particularly given that 2Wire had not disclosed any defense based on such products.

In order to determine whether the Virtuoso or TNETD2000C products actually provided the functionality recited in the asserted claims of the 835 patent, TQ Delta would have to examine the source code for those products as they were purportedly made as of the priority date of the 835 patent. 2Wire has not provided that source code and it is too late for TQ Delta to seek discovery from third party Texas Instruments in order to obtain it at this late stage of the case. Notably, in the *ZyXEL* case for Family 6, Dr. Jacobsen admitted that she had not provided any analysis of the source code for the two purported prior-art devices. *See*, *e.g.*, Ex. D (Jacobsen F6 ZyXEL Dep. Tr.) at 172:21-25 ("Q. And you have not produced any source code, for example, that describes how the Virtuoso chipset and evaluation module work; correct? A. That's right."); *id.* at 177:6-11 (same for the TNETD2000C).¹⁰

Similarly, in light of the fact that Dr. Jacobsen's opinion is that the Virtuoso and/or TNETD2000C actually provided the functionality recited in the asserted claims, any testing of those devices, in the form as they existed prior to the Family 6 invention date, is also relevant information necessary for TQ Delta to assess the accuracy of Dr. Jacobsen's factual assertions. Dr. Jacobsen did not cite to any testing in the Jacobsen Report. Relatedly, in the *ZyXEL* case for Family 6, Dr. Jacobsen admitted that she was not aware of any testing that had been performed on those devices. *See, e.g., id.* at 176:16-22 ("Q. Do you have any test -- you have not produced or provided to us any testing that shows that the Virtuoso and the EVM performs the switching such that the switching occurs on a predefined forward error correction code word boundary following the flag

¹⁰ In fact, Dr. Jacobsen even admitted that she did not provide any evidence demonstrating that the two purported prior-art devices actually include the functionality recited in the asserted claims. *Id.* at 178:12-17 ("Q. So neither you nor ZyXEL have provided any evidence of any kind showing that the TNETD2000C chipset and evaluation module would in operation actually carry out the functions of Claims 8 and 10; correct? A. I think that's correct."); *id.* at 178:25-179:5 (same for the Virtuoso).

signal; is that correct? **A.** I have not been able to test them, no."); *id.* at 177:22-178:8 (same for the TNETD2000C). Because, in the *ZyXEL* case, Dr. Jacobsen was forced to admit that she failed to provide support for her opinions about the purported products, she and 2Wire had plenty of incentive and time to cure those deficiencies by supplementing its disclosures and producing information to support Dr. Jacobsen's assertions. But 2Wire failed to do so.

Therefore, this *Pennypack* factor weighs in favor of striking the devices as prior art references, striking the portions of the Jacobsen Report that cite to and rely on those products, and precluding 2Wire and Dr. Jacobsen from relying on them at trial.

3. Allowing Further Discovery Would Likely Disrupt the Trial Schedule

The Family 6 trial is scheduled to begin January 25, 2021. D.I. 513. Allowing 2Wire and Dr. Jacobsen to rely on the two newly-identified products would disrupt and delay the trial date because it would necessarily require additional fact and expert discovery from third parties, for which there is not sufficient time before trial. If 2Wire is allowed to rely on the Virtuoso and TNETD2000C, due process requires that TQ Delta, at bare minimum, be allowed to test such devices, inspect and analyze their source code, determine whether, when, and in what form they were purportedly reduced to practice, publicly disclosed, or sold, and to use that information to develop rebuttal expert opinions and cross-examine knowledgeable witnesses. But, each of the newly identified devices was manufactured by a third party—Texas Instruments. The third-party discovery necessary to fully inspect any such devices (even assuming full cooperation from all third parties) will possibly require many months, or years, of additional fact discovery, followed by additional expert discovery on the newly discovered facts. *Cf. TQ Delta LLC*, No. 1:14-cv-00954-RGA, at D.I. 807 at pp. 3-4 (where defendant did not have time to conduct independent discovery, including discovery from a third party, the Court finding that the prejudice to the

defendant could not be cured before trial). Furthermore, the ongoing COVID-19 pandemic, which has left most physical places of business at which older physical documents and legacy electronic archives would likely only be accessible, would undoubtedly render any such discovery more onerous and even more time consuming. Of course, none of this is feasible before the scheduled trial date of January 25, 2021. *Id.* at p. 7 ("I agree with TQ Delta, however, that to the extent ADTRAN uses the new references to support specific claim elements, the prejudice cannot be remedied before trial. The extent of discovery needed for TQ Delta to put on an adequate rebuttal case as to new combinations cannot be completed before trial."). Consequently, this *Pennypack* factor weighs in favor of striking the devices as prior art, striking the portions of the Jacobsen Report that cite to and rely on such products, and precluding 2Wire and Dr. Jacobsen from relying on them at trial.

4. 2Wire was Willful in Violating the Disclosure Rules

2Wire has no valid excuse for its belated disclosure of the Virtuoso and TNETD2000C as purported prior art products, or of the invalidity grounds that rely on such products, because neither the Virtuoso nor the TNETD2000C are newly discovered. Rather, Dr. Jacobsen purports to have had knowledge of those products as early as their original development. *See* Ex. A (Jacobsen Report) at ¶6, 218, 1108. But despite Dr. Jacobsen's participation in preparing 2Wire's invalidity contentions, 2Wire did not disclose any invalidity contention based on such products. Further, Dr. Jacobsen identified the Virtuoso and TNETD2000C as prior-art products in the *ZyXEL* case nearly a year ago, yet 2Wire failed to seek leave to supplement its final invalidity contentions to disclose

¹¹ Even though the COVID-19 pandemic may cause future disruptions to the Court's scheduling order, "re-opening discovery to give [TQ Delta] an opportunity to cure the prejudice would only disrupt the schedule further." *TQ Delta, LLC*, No. 1:14-cv-00954-RGA, at D.I. 1186, p. 4.

invalidity contentions based on those products in this case. As such, there can only be one conclusion: 2Wire acted willfully in violating the Court's scheduling order and the disclosure rules in order to prevent TQ Delta from having enough time to seek the appropriate discovery required to properly assess such invalidity grounds. 2Wire's willful disregard for the Court's Scheduling Order and the Federal Rules is further evidenced by the shockingly high number of new invalidity defenses set forth in the Jacobsen Report that were not previously disclosed by 2Wire. The Jacobsen Report sets forth over 50 invalidity defenses – at least 18 of which were not previously disclosed. *Compare supra* at fn. 13 to Ex. B (2Wire Final Invalidity Contentions) at pp. 67-74.

5. The Virtuoso and TNETD2000C Are Not Important to 2Wire's Case

This *Pennypack* factor also weighs in favor of exclusion. Neither the Virtuoso nor the TNETD2000C was important enough to warrant inclusion in 2Wire's Final Invalidity Contentions after nearly seven years of litigation, even though Dr. Jacobsen had purported long-existing personal knowledge of them, and relied on them in the related ZyXEL litigation.

Their lack of importance is further shown by the fact that 2Wire's Final Invalidity Contentions already identified over 50 items of prior art, with eight identified as anticipatory or "primary" references and as being combinable with more than 45 "secondary" references. *See* Ex. B (2Wire's Final Invalidity Contentions) at pp. 67-70. But neither of the Virtuoso or TNETD2000C made the cut. Further, 2Wire has thrown a massive number of invalidity defenses at the wall: at least 25 §103 grounds and 14 §102 grounds based on three patents and/or patent publications, three standards documents and/or contributions, and the two purported products; ten

¹² Dr. Jacobsen also assisted ZyXEL in creating its invalidity contentions. *See* Ex. D (Jacobsen ZyXEL F6 Dep. Tr.) at 14:20-25. Notably, 2Wire's Final Invalidity Contentions are very similar to ZyXEL's Final Invalidity Contentions. *Compare* Ex. B (2Wire's Final Invalidity Contentions) at pp. 67-74 *to* Ex. F (ZyXEL Final Invalidity Contentions) at pp. 65-75.

§112 grounds (only two of which are even arguably mentioned in 2Wire's Final Invalidity contentions); and two §101 grounds (neither of which were previously disclosed in 2Wire's Final Invalidity Contentions). Even without the defenses based on the purported prior art products, this

¹³ The Jacobsen Report asserts at least the following invalidity defenses: invalidity of claims 8 and 10 of the 835 patent under 35 U.S.C. §101 for lack of utility (Ex. A at §VIII.A); invalidity of claims 8 and 10 under 35 U.S.C. §101 for unpatentable subject matter (relying in part on the purported prior art products) (id. at §VIII.B); invalidity of claim 8 under 35 U.S.C. §112 for lack of written description ("The Inventor Did Not Have Possession of an Embodiment in Which a FIP Setting has only one FEC Parameter") (id. at §IX.A.1.a); invalidity of claim 8 under 35 U.S.C. §112 for lack of written description ("The Inventor Did Not Have Possession of an Embodiment in Which the FIP Setting Includes Multiple FEC Parameters, But Only One FEC Parameter's Value Changes") (id. at §IX.A.1.b); invalidity of claim 8 under 35 U.S.C. §112 for lack of written description ("The Inventor Did Not Have Possession of an Embodiment in Which Only the Interleaver Depth Changes During Steady-State Communication") (id. at §IX.A.1.c); invalidity of claim 8 under 35 U.S.C. §112 for lack of written description ("The Inventor Did Not Have Possession of an Embodiment in Which, During Initialization, a Flag Signal is Transmitted") (id. at §IX.A.1.d); invalidity of claim 10 under 35 U.S.C. §112 for lack of written description ("The Inventor Did Not Have Possession of an Embodiment in Which Only the Interleaver Depth Changes During Steady-State Communication") (id. at §IX.A.2); invalidity of claim 10 under 35 U.S.C. §112 for lack of written description ("The Inventor Did Not Have Possession of an Embodiment in Which, During Initialization, a Flag Signal is Transmitted") (id. at §IX.A.2); invalidity of claim 8 under 35 U.S.C. §112 for lack of enablement (id. at §IX.B); invalidity of claims 8 and 10 under 35 U.S.C. §112 for indefiniteness ("A Person Having Ordinary Skill in the Art Would Not Know, With Reasonable Certainty, What the Language 'configurable to' Means") (id. at §IX.C.1); invalidity of claims 8 and 10 under 35 U.S.C. §112 for indefiniteness ("A Person Having Ordinary Skill in the Art Would Not Know Whether the Transceiver Must Actually be Operating to Infringe") (id. at §IX.C.2); invalidity of claims 8 and 10 under 35 U.S.C. §112 for indefiniteness ("A Person Having Ordinary Skill in the Art Would Not Know Exactly Which FEC Parameters' Values are Part of the FIP Setting and Which are Not") (id. at §IX.C.3); invalidity of claim 8 under 35 U.S.C. §102(a) by G.992.1 (id. at §X.A.2); invalidity of claim 8 under 35 U.S.C. §103 by G.992.1 (id. at §X.A.2); invalidity of claim 10 under 35 U.S.C. §102(a) by G.992.1 (id. at §X.A.3); invalidity of claim 10 under 35 U.S.C. §103 by G.992.1 (id. at §X.A.3); invalidity of claim 8 under 35 U.S.C. §102(a) by G.992.3 (id. at §X.B.2); invalidity of claim 8 under 35 U.S.C. §103 by G.992.3 (id. at §X.B.2); invalidity of claim 10 under 35 U.S.C. §102(a) by G.992.3 (id. at §X.B.3); invalidity of claim 10 under 35 U.S.C. §103 by G.992.3 (id. at §X.B.3); invalidity of claim 8 under 35 U.S.C. §102(a) by Cioffi (id. at §X.C.2); invalidity of claim 8 under 35 U.S.C. §103 by Cioffi (id. at §X.C.2); invalidity of claim 10 under 35 U.S.C. §102(a) by Cioffi (id. at §X.C.3); invalidity of claim 8 under 35 U.S.C. §103 by Cioffi in combination with G.992.1 (id. at §X.D.1); invalidity of claim 10 under 35 U.S.C. §103 by Cioffi in combination with G.992.1 (id. at §X.D.2); invalidity of claim 8 under 35 U.S.C. §103 by Cioffi in combination with SC-060 (id. at §X.E.2); invalidity of claim 10 under 35 U.S.C. §103 by Cioffi in combination with SC-060 (id.

is far more than 2Wire could hope to present during the course of a week-long trial. That the late-disclosed defenses based on the purported prior art products make up a small fraction of 2Wire's overall defenses shows that the late-disclosed defenses are unimportant to 2Wire's ability to present a fulsome and varied (albeit meritless) set of invalidity defenses. Defenses based on the Virtuoso and TNETD2000C would be cumulative at best. As such, striking the two purported prior art products, and the invalidity grounds based on such products, will still leave 2Wire with myriad invalidity grounds to pursue at trial.

That the invalidity grounds based on the Virtuoso and TNETD2000C are unimportant is further evidenced by the lack of merit in the defenses themselves. Specifically, Dr. Jacobsen's defenses based on the two purported prior art products hinge on her assertion that none of the claim elements after the term "configurable to" should be given any patentable weight. Essentially, it is Dr. Jacobsen's position that because the two products include a processor, a person of ordinary

at §X.E.3); invalidity of claim 8 under 35 U.S.C. §103 by Cioffi in combination with G.992.3 (id. at §X.F.1); invalidity of claim 10 under 35 U.S.C. §103 by Cioffi in combination with G.992.3 (id. at §X.F.2); invalidity of claim 8 under 35 U.S.C. §103 by Cioffi in combination with Abbas (id. at §X.G.2); invalidity of claim 10 under 35 U.S.C. §103 by Cioffi in combination with Abbas (id. at §X.G.3); invalidity of claim 8 under 35 U.S.C. §102(a) by Abbas (id. at §X.H.1); invalidity of claim 8 under 35 U.S.C. §103 by Abbas (id. at §X.H.1); invalidity of claim 10 under 35 U.S.C. §102(a) by Abbas (id. at §X.H.2); invalidity of claim 10 under 35 U.S.C. §103 by Abbas (id. at §X.H.2); invalidity of claim 8 under 35 U.S.C. §103 by G.992.1 in combination with SC-060 (id. at §X.I.1); invalidity of claim 10 under 35 U.S.C. §103 by G.992.1 in combination with SC-060 (id. at §X.I.2); invalidity of claim 8 under 35 U.S.C. §103 by G.992.1 in combination with Abbas (id. at §X.J.1); invalidity of claim 10 under 35 U.S.C. §103 by G.992.1 in combination with Abbas (id. at §X.J.2); invalidity of claim 8 under 35 U.S.C. §102(a) by Klayman (id. at §X.K.2); invalidity of claim 8 under 35 U.S.C. §103 by Klayman (id. at §X.K.2); invalidity of claim 10 under 35 U.S.C. §102(a) by Klayman (id. at §X.K.3); invalidity of claim 10 under 35 U.S.C. §103 by Klayman (id. at §X.K.3); invalidity of claim 8 under 35 U.S.C. §102(g) by the Virtuoso (id. at §X.L.2); invalidity of claim 8 under 35 U.S.C. §103 by the Virtuoso (id. at §X.L.2); invalidity of claim 10 under 35 U.S.C. §102(g) by the Virtuoso (id. at §X.L.3); invalidity of claim 10 under 35 U.S.C. §103 by the Virtuoso (id. at §X.L.3); invalidity of claim 8 under 35 U.S.C. §102(g) by the TNETD2000C (id. at §X.M.2); invalidity of claim 8 under 35 U.S.C. §103 by the TNETD2000C (id. at §X.M.2); invalidity of claim 10 under 35 U.S.C. §102(g) by the TNETD2000C (id. at §X.M.3); invalidity of claim 10 under 35 U.S.C. §103 by the TNETD2000C (id. at §X.M.3).

skill in the art could have written source code that meets the other elements of the asserted claims and implemented that source code on those products. In other words, even though, at the time of the invention of the 835 patent, the two products did not include software functionality that met the limitations of the asserted claims, those products nonetheless anticipate the asserted claims because such software could have been created (*i.e.*, new source code could have been written) by a person of ordinary skill in the art and implemented in those products. This defense is plainly meritless because it incorrectly renders as surplusage essentially all of the elements of the asserted claims. Because these defenses based on the Virtuoso and TNETD2000C are plainly meritless, they are not just unimportant, but they would serve to severely prejudice TQ Delta, confuse the jury, and cause undue cost and delay to pursue and rebut. Thus, this *Pennypack* factor also weighs in favor of striking the devices as prior art references and precluding 2Wire and Dr. Jacobsen from relying on them at trial.

In sum, the *Pennypack* factors weigh in favor of exclusion of the two purported prior art products and the portions of the Jacobsen Report that rely on such products. *Cf. TQ Delta, LLC*, No. 1:14-cv-00954-RGA, D.I. 807 at p. 5 (determining that prejudice, lack of explanation for timing of new theory, and inability to remedy prejudice without disrupting trial supported striking late disclosed infringement contentions); *Galderma Labs., L.P. v. Amneal Pharma., LLC*, 2018 WL 508876, at *1 (D. Del. Jan. 22, 2018) (same).

VI. CONCLUSION

For the foregoing reasons, TQ Delta respectfully requests that the Court strike the Virtuoso and TNETD2000C products as purported prior art to the Family 6 patent, strike paragraphs 218-233, 236, 322-337, 424 (partial), and 1107-1217 of the Jacobsen Report, and preclude 2Wire and Dr. Jacobsen from relying on the purported prior art products at trial.

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